

10/587262

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 September 2006 (28.09.2006)

PCT

(10) International Publication Number
WO 2006/101252 A1

(51) International Patent Classification:
G01N 21/35 (2006.01)

(21) International Application Number:
PCT/JP2006/306393

(22) International Filing Date: 22 March 2006 (22.03.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2005-087326 24 March 2005 (24.03.2005) JP

(71) Applicant (for all designated States except US): CANON
KABUSHIKI KAISHA [JP/JP]; 3-30-2, Shimomaruko,
Ohta-ku, Tokyo, 1468501 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): ITSUJI, Takeaki
[JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2,
Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP).

(74) Agents: OKABE, Masao et al.; No. 602, Fuji Bldg., 2-3,
Marunouchi 3-chome, Chiyoda-ku, Tokyo, 1000005 (JP).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG,
KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY,
MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO,
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

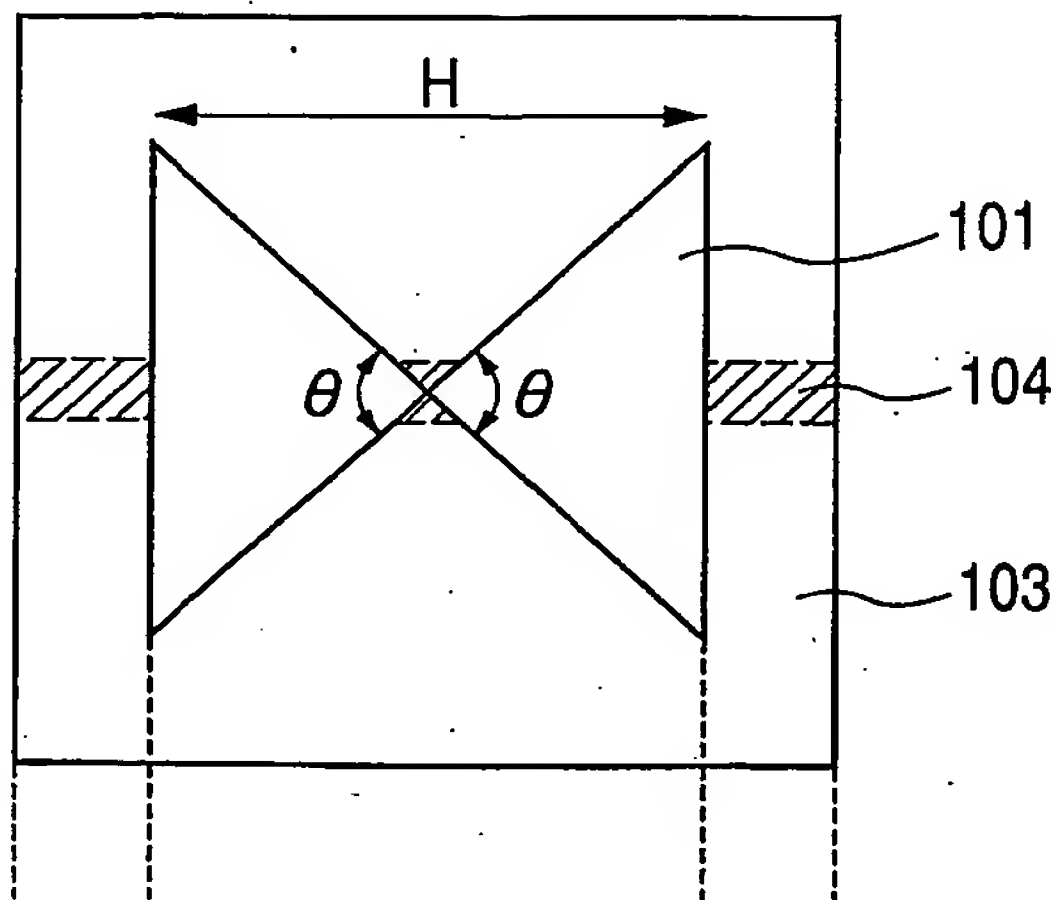
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: INSPECTION APPARATUS USING TERAHERTZ WAVES



(57) Abstract: There is provided an inspection
apparatus having a configuration which can suppress
attenuation of an electromagnetic wave caused by
an environment surrounding the inspection apparatus
and can readily prevent an unwanted substance from
being contaminated into a propagation path of the
electromagnetic wave. The inspection apparatus 100
includes a substrate 103 having therein a structure for
holding an inspected object 104, an electromagnetic
wave transmitting portion 101 having an antenna
structure, and an electromagnetic wave receiving
portion 102 having an antenna structure. The
electromagnetic wave transmitting portion 101 and
the electromagnetic wave receiving portion 102 are
disposed in contact with the substrate 103.

WO 2006/101252 A1

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 September 2006 (28.09.2006)

PCT

(10) International Publication Number
WO 2006/101252 A1

(51) International Patent Classification:
G01N 21/35 (2006.01)

(21) International Application Number:
PCT/JP2006/306393

(22) International Filing Date: 22 March 2006 (22.03.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2005-087326 24 March 2005 (24.03.2005) JP

(71) Applicant (for all designated States except US): CANON
KABUSHIKI KAISHA [JP/JP]; 3-30-2, Shimomaruko,
Ohta-ku, Tokyo, 1468501 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): ITSUJI, Takeaki
[JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2,
Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP).

(74) Agents: OKABE, Masao et al.; No. 602, Fuji Bldg., 2-3,
Marunouchi 3-chome, Chiyoda-ku, Tokyo, 1000005 (JP).

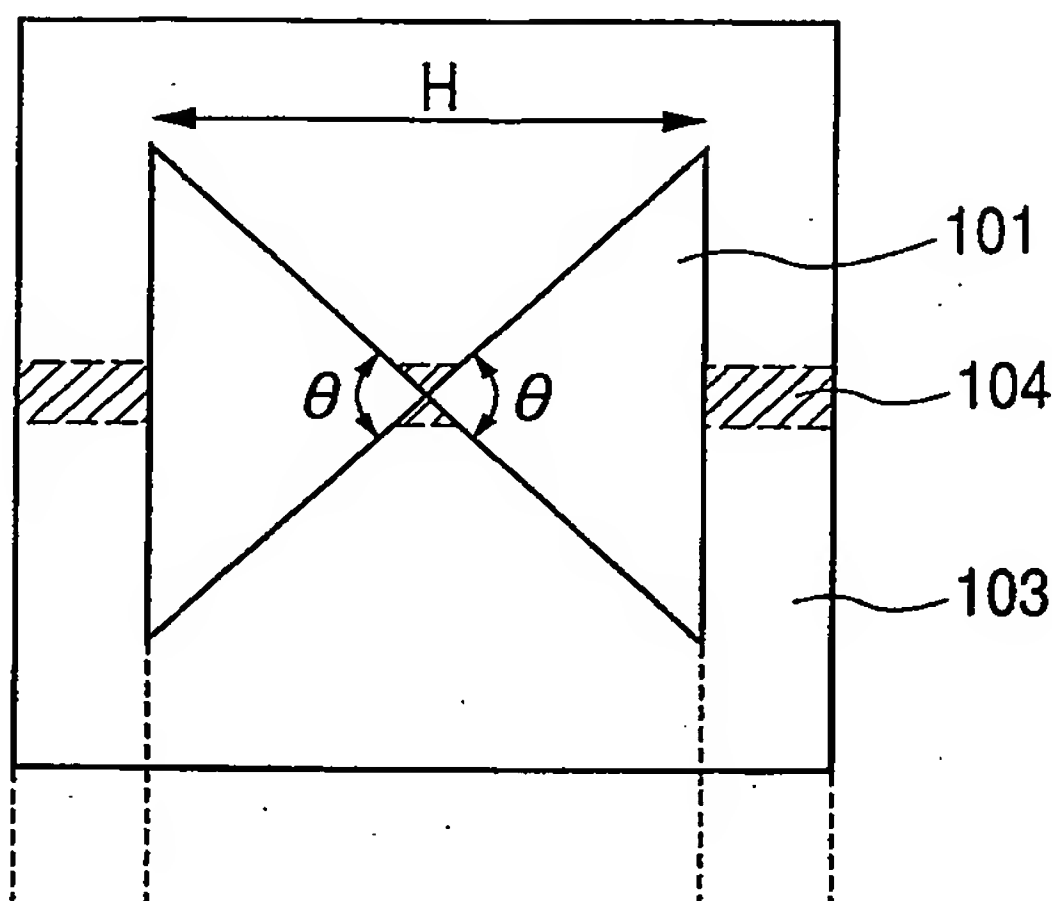
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INSPECTION APPARATUS USING TERAHERTZ WAVES



(57) Abstract: There is provided an inspection apparatus having a configuration which can suppress attenuation of an electromagnetic wave caused by an environment surrounding the inspection apparatus and can readily prevent an unwanted substance from being contaminated into a propagation path of the electromagnetic wave. The inspection apparatus 100 includes a substrate 103 having therein a structure for holding an inspected object 104, an electromagnetic wave transmitting portion 101 having an antenna structure, and an electromagnetic wave receiving portion 102 having an antenna structure. The electromagnetic wave transmitting portion 101 and the electromagnetic wave receiving portion 102 are disposed in contact with the substrate 103.

WO 2006/101252 A1